CLAIMS:

1. A zoom lens having at least a first fixed lens group, a second fixed lens group, and a controllable lens group, characterized in that the controllable lens group comprises a voltage-controlled electrowetting device, which device includes a first fluid and a second fluid having different refractive indices and comprises at least two first fluid-second fluid interfaces.

2. A zoom lens as claimed in claim 1 having a front lens group at its object side and a rear lens group at its image side, characterized in that the first lens group is the front lens group, the second lens group is the rear lens group, and the electrowetting device is arranged between the first lens group and the second lens group.

3. A zoom lens as claimed in claim 2, characterized in that the electrowetting device comprises one electrowetting cell having two first fluid-second fluid interfaces.

4. A zoom lens as claimed in claim 2, characterized in that the electrowetting device comprises a first electrowetting cell and a second electrowetting cell each having at least one first fluid-second fluid interface.

5. A zoom lens as claimed in claim 4, characterized in that each electrowetting cell has two first fluid-second fluid interfaces.

6. A zoom lens as claimed in claim 1, characterized in that the electrowetting device comprises a first and a second electrowetting cell each having one first fluid-second fluid interface, and in that a lens stop is arranged between the first and the second electrowetting cell.

7. A zoom lens as claimed in claim 6 having a front lens group at its object side and a rear lens group at its image side, characterized in that the first lens group is the front

lens group and the second lens group is the rear lens group, and in that the electrowetting device is arranged between the first lens group and the second lens group.

8. A zoom lens as claimed in claim 6, characterized in that one electrowetting cell forms a front group and the second electrowetting cell forms the rear group, and in that the first lens group and the second lens group are arranged between the electrowetting cells, the lens stop being arranged between the first lens group and the second lens group.

9. A zoom lens as claimed in any one of claims 1-8, characterized in that it comprises at least one folding mirror arranged between an electrowetting cell and one of the first and second lens groups.

10. A zoom lens as claimed in claim 9, characterized in that it comprises two folding mirrors, one at the object side portion and the other at the image side portion of the zoom lens.

11. A zoom lens as claimed any one of claims 1-8, characterized in that an electrowetting cell comprises:

- a substantially cylindrical chamber having a cylinder wall, the fluid chamber containing a first fluid and an axially displaced second fluid, the fluids being non-miscible, in contact across a meniscus interface and having different indices of refraction,
- a fluid contact layer arranged on the inside of the cylinder wall,
- a first electrode separated from the first fluid and the second fluid by the fluid contact layer,
- a second electrode acting on the second fluid,

the fluid contact layer having a wettability by the second fluid which varies under the application of a voltage between the first electrode and the second electrode, such that the shape of the meniscus varies in dependence on the said voltage,

wherein the wettability of the fluid contact layer by the second fluid is substantially equal on both sides of the intersection of the meniscus with the contact layer when no voltage is applied between the first and second electrodes.

12. A zoom lens as claimed in claim 11 comprising one electrowetting cell, characterized in that a second fluid is present on either side of the first fluid, the first fluid and the second fluids being in contact across respective first and second meniscus interfaces.

13. A zoom lens as claimed in claim 12, characterized in that a folding mirror is arranged between the front lens group and the electrowetting cell.

14. A zoom lens as claimed in claim 12 or 13, characterized in that a folding mirror is arranged between the electrowetting cell and the rear lens group.

15. A zoom lens as claimed in claim 11 comprising two electrowetting cells, characterized in that each cell has one meniscus interface and in that a lens stop is arranged between the cells.

16. A zoom lens as claimed in claim 11, characterized in that a second fluid is present on either side of the first fluid in each electrowetting cell, the first fluid and the second fluids being in contact across respective first and second meniscus interfaces.

17. A zoom lens as claimed in claim 15 or 16, characterized in that the two cells share one fluid chamber.

18. A zoom lens as claimed in claim 17, characterized in that the fluid chamber comprises at least one folding mirror formed by a reflective inclined portion of a fluid chamber wall, which mirror reflects incident radiation at an angle of substantially 90°.

19. A zoom lens as claimed in claim 18, characterized in that the fluid chamber comprises two folding mirrors, one at the object-side portion and the other at the image side portion of the zoom lens.

20. A zoom lens as claimed in claim 13, 14, 18 or 19, characterized in that the folding mirror at the image-side portion is integrated with the front lens group.

21. A zoom lens as claimed in any one of claims 1-20, characterized in that the first fluid comprises an insulating liquid and the second fluid comprises a conducting liquid.

22. A zoom lens as claimed in any one of claims 1-20, characterized in that the first fluid comprises a vapor and the second fluid comprises a conducting liquid.

23. A camera comprising a zoom lens as claimed in any one of claims 1-22.

24. A handheld apparatus comprising input means, information processing means, and display means, wherein a camera as claimed in claim 23 is included.